

insects principally belonging to the group of the *Rhynchophora* or Weevils. One of the figures given by that celebrated naturalist represents a mining larva which lives in the leaves of the Mallow, and which is evidently a species of *Trachys*.—*Comptes Rendus*, Feb. 16th, 1857, p. 314.

*On a Monstrosity of Haliotis (albicans?).*

By JOHN EDWARD GRAY, Ph.D., F.R.S., etc.

Mr. Cuming kindly showed to me a series of four specimens of Ear-shells, which he procured in Paris, and of which he has some other examples.

The four specimens are all peculiar for having an elongated continued slit occupying the place where the series of perforations is usually situated,—this slit extending more than one-third of the length of the spiral ridges on the outer or left side of the whorls; but it does not extend to the margin of the shell, and there is generally a more or less deep pit on the inner surface, in front of its extremity.

When I first saw the shell, I was inclined to regard it as a monstrosity; but when I considered the uniformity of the peculiarity in the specimens which I possess, and in those which Mr. Cuming had seen, I thought that it might be the type of a new form, for which *Schismotis excisa* would be a good name.

But a comparison of the shell with the specimens of *Haliotis albicans* in the British Museum from Van Diemen's Land, has induced me to believe that they are only varieties of that or some very nearly allied species, and that the peculiarity of their structure is produced by the locality they inhabit, the absence of the shelly matter on the branchial ridge being probably produced by the continued abrasions to which the shells have evidently been exposed, either by some chemical peculiarities in the water or the attack of parasitic animals.

All the specimens are in a very eroded condition, and two of them are very much pierced with a minute worm, and they all have the under valve of a *Hipponyx* attached on the left side near the circumference of the shell; one of these shells (which is generally the largest of the series) being placed in front of the slit between its termination and the front margin of the shell, covering the space which in the normal shell would be the place of one or two perforations.

If the exterior surface of a good specimen of *Haliotis albicans* is examined, it will be found that there exists a distinct narrow straight groove continued from one perforation to the other, and to the margins of the outer lip, which I have not seen so distinctly marked in any other species of the genus, indicating probably the suture between the overlapping of the two sides of the slit in the mantle of the animal, and this suture is marked but by a slight line on the inner surface of the shell. The same suture is to be observed in most other *Haliotidæ*, but they are generally not so distinct as in *H. albicans*, and much more sinuous.

I am inclined to believe that the slit in the specimens is to be considered as the imperfect filling-up of the shelly matter between the usual perforations, caused by the eroded and evidently diseased state of the specimens.

The interior of the shells is marked with a very rough tubercular muscular scar, which is not to be observed in perfect specimens of *Haliotis albicans*; but this will be found to be uniformly the case with most specimens of Ear-shells which have an eroded or worm-eaten outer surface, even in species which have a scarcely marked scar in their perfect or normal condition; so that this difference, like the slit, appears to depend on the state of the shell and the animal which formed it.

The interior of the shell presents a further peculiarity, but this is evidently caused by the same effects as the roughness of the muscular scar and slit on the branchial ridge, viz. there is a more or less deep broad groove on the inner surface between the slit and the sub-central muscular scar, which is more or less marked with regular cross grooves, and they are evidently impressions of the outer surface of the two branches of the gills.

Only one of the specimens I have seen shows any indications of the outer surface of the shell, and in that it only forms a band about one-fourth of an inch wide on the edge of the outer lip; it is pale, greyish, and concentrically striated, like the surface of the normal specimen of *Haliotis albicans*.

This kind of monstrosity was to be expected, as the mantle of the animal is slit under the perforations on the shell; and we have in *Scissurella* and in several fossil genera the perforations replaced by a more or less continued slit over the mantle. I have never before seen an Ear-shell with more than two holes united into a short slit by the absence of the shelly matter between them; but when we examine the *Haliotis albicans*, the existence of the more distant exterior groove renders it the species in which one would more readily expect such an abnormal formation to occur.

I have seen two specimens of two species of *Haliotis*, which exhibited just the converse deformity, being without any appearance of the series of perforations, the place of the holes being occupied by a continued convex spiral rib, like the second rib in *Padollus*. Most probably in this individual the mantle of the animal was without any slit, and hence the malformation, the water being admitted to the gills by the slight notch in front of the ribs, as in some *Emarginulæ* or *Scuta*.—*Proc. Zool. Soc.* May 27, 1856.

#### PERFORATED STRUCTURE OF RHYNCHONELLA GEINITZIANA.

*To the Editors of the Annals of Natural History.*

Belmont near Galway, March 10, 1857.

GENTLEMEN,—I am much gratified to learn from your last Number that Dr. Carpenter has examined some Russian specimens of *Rhynchonella Geinitziana*; inasmuch as his examination appears to confirm my suspicion that the German shell, so called, is “a different